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CENTRAL FAX CENTER  
AUG 28 2009**Amendments to the Claims:**

This listing of claims replaces all prior versions, and listing, of claims in the application.

**Listing of Claims:**

Claim 1. (Currently Amended) A high aspect ratio antimicrobial additive comprising i) ~~an inorganic antimicrobial agent in particle form comprising one or more antimicrobial metals or metal ions dispersed in ii) a water absorbing, water vapor absorbing, wettable~~ discrete microparticles of an antimicrobial hydrophilic polymer having a water absorption of equilibrium of at least about 5% by weight, said high aspect ratio antimicrobial additive being in the form of discrete microparticles, said microparticles, whose longest dimension is from about 5 microns to about 500 microns and whose, having an aspect ratio is greater than about 2,

wherein the antimicrobial hydrophilic polymer comprises i) a water absorbing, water vapor absorbing and wettable hydrophilic polymer whose water absorption at equilibrium is at least 5% by weight and ii) an inorganic antimicrobial metal or metal ion-containing antimicrobial agent in particle form dispersed therein, said inorganic antimicrobial agent selected from antimicrobial water soluble glasses, ion-exchange type antimicrobial agents and combinations of the two.

Claim 2. (Previously Presented) The high aspect ratio antimicrobial additive according to claim 1 wherein the antimicrobial metal or metal ion is selected from the group consisting of silver, copper, zinc, tin, gold, mercury, lead, iron, cobalt, nickel, manganese, arsenic, antimony, bismuth, barium, cadmium, chromium, thallium and combinations thereof.

Claim 3. (Previously Presented) The high aspect ratio antimicrobial additive according to claim 1 wherein the antimicrobial metal or metal ion is silver, zinc, copper or a combination of any two or all three of the foregoing.

Claim 4. (Cancelled)

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Claim 5. (Currently Amended) The high aspect ratio antimicrobial additive according to claim 1 wherein the inorganic antimicrobial agent is an antimicrobial water soluble glass metal ion-exchange agent comprising a ceramic carrier having ion-exchanged antimicrobial metal ions.

Claim 6. (Currently Amended) The high aspect ratio antimicrobial additive according to claim [[5]] 1 wherein the inorganic antimicrobial agent is an ion-exchange type antimicrobial agent comprising ceramic particles ~~carrier~~ is selected from the group consisting of zeolites, hydroxyapatites and zirconium phosphates having ion-exchanged antimicrobial metal ions.

Claim 7. (Currently Amended) The high aspect ratio antimicrobial additive according to claim 6 wherein the ~~ceramic carrier~~ inorganic antimicrobial agent is a zeolite with ion-exchanged ~~and the antimicrobial metal ions are~~ silver ions, alone or in combination with zinc ions or copper ions or both.

Claims 8 and 9 (Cancelled)

Claim 10. (Previously Presented) The high aspect ratio antimicrobial additive according to claim 1 wherein the hydrophilic polymer is a polymer with water absorption at equilibrium of at least about 20% by weight.

Claim 11. (Currently Amended) The high aspect ratio antimicrobial additive according to claim 10 wherein the hydrophilic polymer is ~~chosen from~~ a polyhydroxyethyl methacrylate, polyacrylamide, vinylpyrrolidone copolymer, N-vinyl-2-pyrrolidinone polyvinylpyrrolidone, polysaccharides polysaccharide, polylactic acid, polyamide or and hydrophilic polyurethane.

Claim 12. (Currently Amended) The high aspect ratio antimicrobial additive according to claim 11 wherein the hydrophilic polymer is a hydrophilic polyurethane.

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**Claim 13. (Previously Presented)** The high aspect ratio antimicrobial additive according to claim 1 comprising from about 1 to about 1000 parts by weight of the inorganic antimicrobial agent based upon 100 parts by weight of the hydrophilic polymer.

**Claim 14. (Previously Presented)** The high aspect ratio antimicrobial additive according to claim 13 comprising from about 10 to about 200 parts by weight of the inorganic antimicrobial agent based upon 100 parts by weight of the hydrophilic polymer.

**Claim 15. (Previously Presented)** The high aspect ratio antimicrobial additive according to claim 14 comprising from about 20 to about 100 parts by weight of the inorganic antimicrobial agent based upon 100 parts by weight of the hydrophilic polymer.

**Claim 16. (Previously Presented)** The high aspect ratio antimicrobial additive according to claim 1 further comprising an inorganic discoloration inhibiting agent.

**Claim 17. (Previously Presented)** The high aspect ratio antimicrobial additive according to claim 16 wherein said discoloration inhibiting agent is an ammonium compound.

**Claim 18. (Currently Amended)** The high aspect ratio antimicrobial additive according to claim 16 wherein the antimicrobial agent comprises an ~~antimicrobial-metal~~ ion-exchange type antimicrobial agent and said inorganic discoloration agent comprises ion-exchanged ammonium ions contained within said antimicrobial agent.

**Claim 19. (Currently Amended)** The high aspect ratio antimicrobial additive according to claim [[5]] 6 further comprising a dopant agent.

**Claim 20. (Previously Presented)** The high aspect ratio antimicrobial additive according to claim 19 wherein said dopant is an inorganic sodium salt.

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Claim 21. (Previously Presented) The high aspect ratio antimicrobial additive according to claim 20 wherein said dopant is sodium nitrate.

Claims 22 – 32 (Cancelled)

Claim 33. (Previously Presented) The high aspect ratio antimicrobial additive according to claim 1 wherein the aspect ratio is from about 4 to about 100.

Claim 34. (Previously Presented) The high aspect ratio antimicrobial additive according to claim 1 wherein the aspect ratio is from about 5 to about 30.

Claims 35-44 (Cancelled)

Claim 45. (Withdrawn) A method of altering the release characteristics of an inorganic antimicrobial agent from a polymer matrix, said method comprising incorporating [[a]] the high aspect ratio hydrophilic antimicrobial additive according to claim 1 into said polymer matrix, ~~wherein said high aspect ratio hydrophilic antimicrobial additive comprises i) the inorganic antimicrobial agent in particle form dispersed in ii) a water absorbing, water vapor absorbing and wettable hydrophilic polymer having a water absorption at equilibrium of at least about 5% by weight; said high aspect ratio hydrophilic antimicrobial additive being in the form of microparticles whose longest dimension is from about 5 microns to about 500 microns and whose aspect ratio is greater than about 2; wherein the water absorption characteristics of the hydrophilic polymer of the antimicrobial additive is different from that of the matrix polymer.~~

Claim 46-47. (Cancelled)

Claim 48. (Previously Presented) The high aspect ratio antimicrobial additive according to claim 1 wherein the longest dimension is from about 10 microns to about 500 microns.

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Claim 49. (Previously Presented) The high aspect ratio antimicrobial additive according to claim 1 wherein the longest dimension is from about 20 microns to about 100 microns.

Claim 50. (Withdrawn) The method according to claim 45 wherein the high aspect ratio of the antimicrobial additive is from about 4 to about 100.

Claim 51. (Withdrawn) The method according to claim 45 wherein the high aspect ratio of the antimicrobial additive is from about 5 to about 30.

Claim 52. (Cancelled)

Claim 53. (Withdrawn) The method according to claim 45 wherein the longest dimension of the antimicrobial additive is from about 10 microns to about 500 microns.

Claim 54. (Withdrawn) The method according to claim 45 wherein the longest dimension of the antimicrobial additive is from about 20 microns to about 100 microns.

Claim 55. (Currently Amended) A high aspect ratio antimicrobial additive comprising i) from about 1 to about 1000 parts by weight of an inorganic antimicrobial agent in particle form dispersed in ii) 100 parts by weight of a water absorbing, water vapor absorbing and wettable hydrophilic polymer,

said inorganic antimicrobial agent selected from antimicrobial water soluble glasses, ion-exchange type antimicrobial agents and combinations of the two,

said water absorbing, water vapor absorbing and wettable hydrophilic polymer having a water absorption at equilibrium of at least about 5% by weight; and

said high aspect ratio antimicrobial additive being in the form of discrete microparticles whose longest dimension is from about 5 to about 500 microns and whose aspect ratio is greater than 2.

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Claim 56. (Previously Presented) The high aspect ratio antimicrobial additive according to claim 55 wherein the aspect ratio is from about 4 to about 100.

Claim 57. (Previously Presented) The high aspect ratio antimicrobial additive according to claim 55 wherein the aspect ratio is from about 5 to about 30.

Claim 58. (Previously Presented) The high aspect ratio antimicrobial additive according to claim 55 comprising from about 10 to about 200 parts by weight of the antimicrobial agent based upon 100 parts by weight of the hydrophilic polymer.

Claim 59. (Previously Presented) The high aspect ratio antimicrobial additive according to claim 55 comprising from about 20 to about 100 parts by weight of the antimicrobial agent based upon 100 parts by weight of the hydrophilic polymer.

Claim 60. (Currently Amended) The high aspect ratio antimicrobial additive according to claim 55 wherein the antimicrobial agent is an antimicrobial metal ion-exchange type antimicrobial agent comprising a ceramic carrier ceramic particles having ion-exchanged antimicrobial metal ions.

Claim 61. (Currently Amended) The high aspect ratio antimicrobial additive according to claim 60 wherein the ceramic carrier is particles are selected from the group consisting of zeolites, hydroxyapatites and zirconium phosphates.

Claim 62. (Currently Amended) The high aspect ratio antimicrobial additive according to claim 60 wherein the ceramic carrier is a particles are zeolite and the antimicrobial metal ions are silver ions, alone or in combination with zinc ions or copper ions or both.

Claim 63. (Currently Amended) The high aspect ratio antimicrobial additive according to claim ~~[[5]]~~ 6 wherein the antimicrobial metal ions are silver ions, alone or in combination with zinc ions or copper ions or both.

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Claim 64. (Previously Presented) The high aspect ratio antimicrobial additive according to claim 60 wherein the antimicrobial metal ions are silver ions, alone or in combination with zinc ions or copper ions or both.